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ORIGINAL ARTICLES.

RESULTS OF THE HISTOLOGICAL EXAMINATION OF ONE OF THE BLIND AND APPARENTLY INOFFENSIVE EYES ENUCLEATED BY DR. S. C. AYRES.

By ADOLF ALT, M.D.,

ST. LOUIS, MO.

(*With Micro-Photographs.*)

IN the July (1900) number of this JOURNAL appeared an article by Dr. S. C. Ayres with the title: "Observations on Some Blind, but Quiet and Apparently Inoffensive Eyes; Do They Produce a Pseudo-Sympathetic Inflammation?" I promised to give the description of some of these eyes, but can only find one of them, which Dr. Ayres kindly sent me for examination, that of his Case I., G. W. D. In his report of the case Dr. Ayres stated that the eye which he enucleated was shrunken, but not tender, except on firm pressure, and that ossification of the choroid was detected. The eye was duly hardened and examined.

Macroscopically it was seen that the pupillary margin of the iris was *in toto* adherent to the crystalline lens. Behind the lens a dense cyclitic membrane stretched across the interior of the eyeball, a small distance behind the posterior lens-

capsule, to which it did not seem to be attached, except just in the center. The retina was totally detached and ran forward from the optic nerve entrance in the shape of a thick chord towards the cyclitic membrane into which it merged. Bone formation was seen to cover the whole of the inner surface of the choroid.

On microscopic examination the circular synechia of the pupillary margin of the iris is especially conspicuous. The tissue of the iris containing the sphincter muscle is slightly folded backwards upon the anterior lens-capsule, where the synechia is found. Into the pupillary space an anterior polar cataract of the usual appearance is projecting. Iris and ciliary body are largely infiltrated with round cells, their blood-vessels hyperæmic.

In the lamellar tissue of the polar cataract numerous deposits of amorphous lime are found. The remainder of the lens shows cataractous degeneration throughout. The nucleus is so large that there is hardly any cortical substance. At the base of the anterior polar cataract there are large spots in which the lens-epithelium has proliferated enormously. The whole of the posterior lens-capsule is lined with an almost unbroken layer of epithelial cells.

The cyclitic membrane consists of a dense fibrous tissue containing many nests of pigmented cells and a great deal of free pigment. In numerous places there are small round-cell accumulations which have taken up the hæmatoxyline stain with much more avidity than the surrounding tissue, and are therefore probably of very recent date. Their arrangement gives the impression of a septic inflammation, yet I have not succeeded in finding any microbes in, or in the neighborhood of, these round-cell aggregations. There are also numerous deposits of amorphous lime and some patches of bone-tissue in the cyclitic membrane. Posteriorly, the retina is attached to this membrane. It is undergoing atrophy and its histological conditions are in no way remarkable, except for round-cell aggregations and deposits of amorphous lime, similar to those found in the cyclitic membrane.

The most interesting part of this eye is the bone formation, which is very extensive.

The bone-tissue, with all the characteristics of true bone,

lies, as far as can be seen, on the inner surface of the lamina vitrea of the choroid. This latter is not always visible, but has in places evidently given way to the pressure from the superimposed tissues. In numerous places it is found as a wavy double-contoured line (see Fig. 1). This waviness shows that it must have been ruptured in places, and been contracted by the superimposed shrinking tissue.

The bone-tissue is in most places separated from the inner surface of the choroid by a smaller or larger amount of a lamellated dense connective tissue which contains a great deal

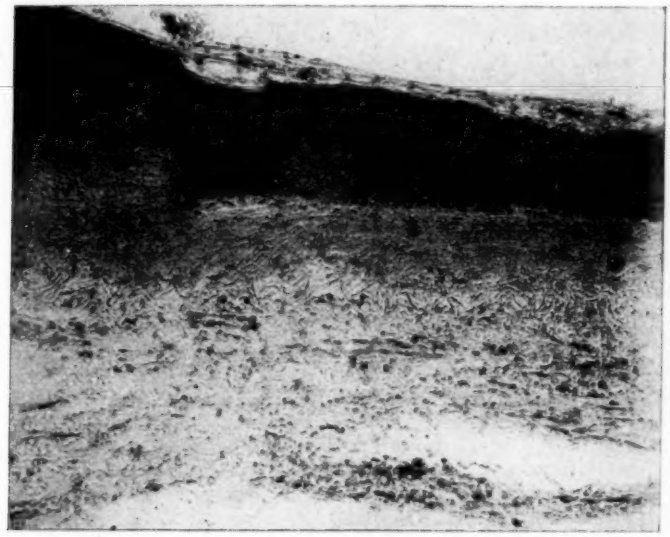

FIG. 1.

of amorphous lime, and numerous pigment patches. A similar tissue covers the bone-tissue on the inner surface.

The bone-tissue is not equally thick in all of those parts of the eye which lie behind the cyclitic membrane, but varies from one to four and five layers in the transverse section. Where the bone-tissue is thickest, its interspaces are filled with marrow (see Fig. 2). This, I think, shows that the bone-tissue formation has been going on for a very long time, and is, if I remember rightly, only the second time that I have found fat-tissue in intraocular bone-tissue.

Contrary to the usual experience, when there is bone formation, the choroid is in some parts extremely thick,

eight and ten times thicker than in the norm. This thickness is due in part to a direct increase of tissue in the outer layers of the choroid, the result of former inflammations (choroiditis hypertrophica). In other parts this thickness is produced by a two-fold cell-infiltration. The one form is that of small inflammatory foci, as we usually see it when it is due to the presence of microbes, although I found none here. In the other form of infiltration the round cells are much larger and are arranged in more or less parallel rows. I know nothing

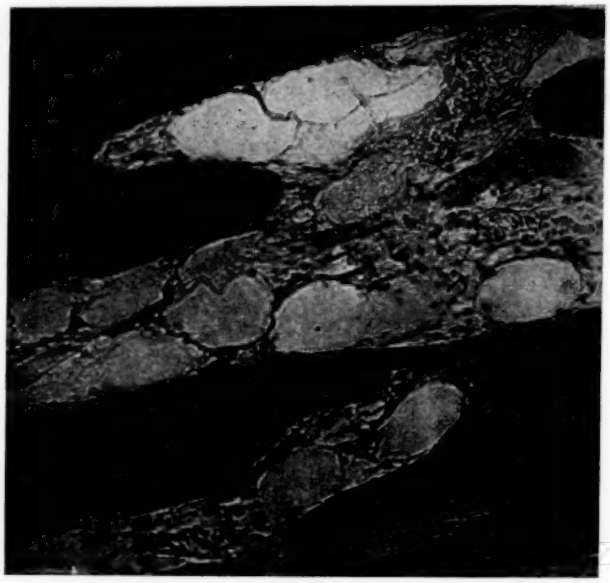

FIG. 2.

about the source of these large cells, unless they can be taken to be osteoblasts. (See Fig. 3.)

The optic nerve shows a large increase in connective tissue and atrophy of the nerve-fibres. It and the retina are, however, largely infiltrated with round cells, denoting a more recent inflammatory process. This inflammatory process is also particularly pronounced in the walls of the inter-vaginal space, that is in the pia mater and arachnoid. Here I find again numerous small round-cell foci aside from the general round-cell infiltration and the proliferation of endothelial cells.

Some of the posterior ciliary nerves, on their way through the sclerotic, also show round-cell infiltration.

In general, then, it seems clear that while this eye clinically appeared to be quiet and apparently inoffensive, it had all the qualities in it which seem necessary to induce sympathetic in-

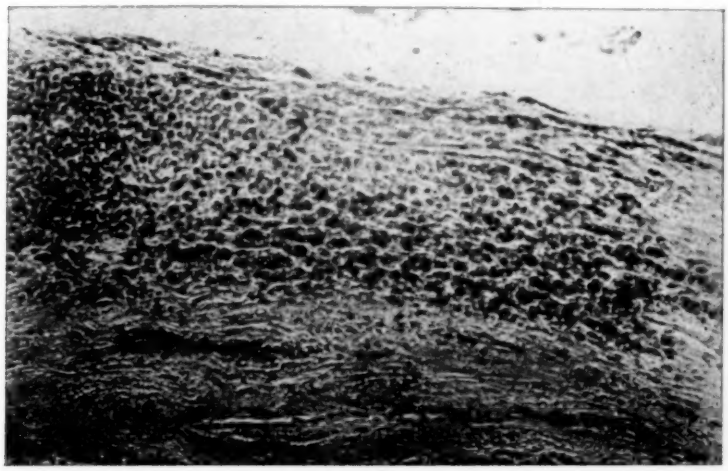

FIG. 3.

flammation in the other eye, and I think this, together with the fact that after the enucleation the other eye improved, points to it that the pathological conditions in the second eye were really of a sympathetic nature, and not only pseudo-sympathetic.

PAMPHLETS RECEIVED.

"Ophthalmic Memoranda," by G. E. de Schweinitz, M.D.

"The Histology of the Lacrymal Gland in Chronic Dacryocystitis," by D. E. de Schweinitz, M.D.

"Papilloma of the Plica Semilunaris," by G. E. de Schweinitz, M.D.

"Concerning the Substitutes for Enucleation of the Eye," etc., by G. E. de Schweinitz, M.D.

"The Comparative Value of Enucleation and the Operations Which Have Been Substituted for It," by G. E. de Schweinitz, M.D.

"A Report of Cases," by E. C. Ellett, M.D.

"An Auxiliary Skiascope," by E. C. Ellett, M.D.

A CASE OF QUININE AMAUROSIS.

By ADOLF ALT, M.D.,

ST. LOUIS, MO.

MISS E. S., 27 years of age, presented herself at the Eye and Ear Clinic of the St. Louis Mullanphy Hospital September 26, 1900, seeking relief from a medicamentous mydriasis, which some general practitioner had produced some time previously and which she thought was all that ailed her eyes at that date.

She gave the following history: On August 27th she was ordered to take muriate of quinine on account of an attack of malarial fever. Starting at 4 o'clock in the afternoon, she took 6 grains every two hours till 10 o'clock (24 grains), then 4 grains every two hours until she had taken 40 grains in all.

After the third dose (18 grains at 8 o'clock) she experienced violent photopsiæ, a phenomenon which was followed by the gradual loss of vision, and this apparently affected both eyes to an equal degree. At midnight (28 grains) she could barely recognize the light of the lamp in her room, and at 2 A. M. (32 grains) she was perfectly blind, with not a vestige of light perception left.

In spite of this unfortunate condition, on the next day, the 28th of August, she was ordered to take another 40 grains of quinine in the next thirty-six hours. The total blindness remained unchanged, until on August 30th at 3 P. M. she thought she could perceive the light coming through a transom. From this on, her vision grew very slowly better and better. The improvement was, however, confined to the central vision and her visual fields remained in consequence so small that for about a week she could not go about alone and had to be led. After about two more weeks had passed, she began to be able to read, however only when the book was "right in front of her," yet the print was still "very dazzly."

Now, at her visit at the clinic, two months after the poisoning had taken place, she can read almost as well as ever, only she still sees as if she were looking through a tube.

Status præsens.—Both pupils are dilated *ad maximum* and do not respond to light. Vision, R. E. $^{20}/_{20}$; L. E. $^{20}/_{30}$?. The

visual fields are quite considerably reduced, down, up and inwards, especially in the right eye, slightly less so in the left eye. The ophthalmoscope revealed a chalk-white optic papilla in either eye. No arteries could be seen in the right fundus, only two larger veins. In the left eye a few arteries could with difficulty be made out, the visible veins were normal in number but very thin. No examination of the color sense could be made. She was given strychnia internally.

On October 25th I saw the patient again and found the ophthalmoscopic picture about the same, both papillæ being chalky-white. Her vision has now increased in the R. E. to $^{20}/_{30}$ and in the L. E. to $^{20}/_{20}$?. The visual fields had probably not been changed very much for the better. The right was now upwards 10°; temporally 35°; downwards 5°, and nasally 15°. The field of the left eye was upwards 20°; temporally 30°; downwards 30°; nasally 10°.

An attempt to see and examine her again has been unsuccessful since she has gone to work and cannot spare the time; she reports, however, that her vision seems still further improved. From her description the fields of vision do not seem to have become any larger.

The patient had never before experienced any trouble in her vision and was positive in her history of quinine poisoning.

While there have been probably a hundred observations of such cases of quinine amaurosis placed on record since Gruening's first compilation in 1881 (*Knapp's Archives*), but few single observers have seen more than one or two cases of this nature.

It is surely astonishing that in my experience, in a malarial country like ours is, this is the first undoubted case which I have seen of quinine amaurosis. When we consider what an enormous amount of quinine is consumed in the Mississippi Valley, it is quite remarkable that such cases are not more frequent in this district. Yet, it undoubtedly is due to a special idiosyncrasy only that now and then an individual is affected in such a manner. I have often, too, thought it not impossible that of the many cases of atrophy of the optic nerve which are observed here, some might be due to the former habit of many people of "eating" quinine to prevent chills and fever.

I particularly inquired in this case whether before the blind-

ness came on, the patient had any peculiar color perceptions, but she had not perceived any. Once when I had taken 60 grains of muriate of quinine inside of an hour I had the most beautiful green vision that can be imagined. Everything was in a bright emerald hue.

This symptom does, as far as I know, not seem to have been observed by others. Even de Schweinitz, in the exhaustive chapter on toxic amblyopias in the "System of Diseases of the Eye," Vol. IV. (Norris and Oliver), does not mention any chromatopsia from the ingestion of quinine.

Among others this same author, and more recently W. A. Holden ("Transactions of the American Ophthalmological Society," 1898), have studied the pathology of quinine amaurosis experimentally and very exhaustively. From these studies it seems that quinine at first produces a contraction of the blood-vessels with consequent malnutrition of the retina and destruction of the ganglionic cells, which in turn is followed by an ascending atrophy of the optic nerve-fibres.

Luckily a large number of these cases of quinine amaurosis seem to regain at least a certain amount of vision. It is usually the central vision which is preserved and the field in most cases seems to remain reduced to a horizontal ellipse, as in the case here related.*

PAMPHLETS RECEIVED.

"A Series of Cases of Malarial Keratitis, with a Report of the Blood Examinations," by E. C. Ellett, M.D.

"The Relative Value of Instruments Used for Keratometry," by A. S. McConachie, M.D.

"A Valuable Subjective Method of Measuring Astigmatism," by E. Jackson, M.D.

"Misapprehensions Regarding the Dioptric Eye, and Its Uses," by E. Jackson, M.D.

"The Distance Between Surgeon and Patient for Accurate Skiascopy," by E. Jackson, M.D.

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*For similar cases see this JOURNAL, Vol. XIV., page 1, one by H. D. Bruns, and Vol. XIV., page 13, one by S. C. Ayres; also Vol. XI., page 246, one case by J. H. Claiborne.

COMBINED SCLEROTOMY AND IRIDECTOMY.*

By PROF. L. DE WECKER,

PARIS, FRANCE.

Translated by Adolf Alt, M.D., St. Louis, Mo.

IT will soon be half a century (1857) since iridectomy, practiced by von Graefe for the cure of glaucoma, has saved or saves thousands of patients from an incurable blindness, and yet, we can hardly feel authorized to call this surgical intervention a sovereign and undisputed means of curing glaucoma.

I mention here as a curiosity only, or rather an eccentricity, the assertion made by some enemies of iridectomy who dare to maintain that iridectomy has not succeeded in restoring vision to one single glaucomatous eye (Schoen), yet we have been forced to acknowledge—and von Graefe himself has done it—that in a certain, fortunately a very small, number of cases, the iridectomy can exert a destructive instead of a curing influence upon the vision of glaucomatous eyes.† On the other hand, have not the most enthusiastic supporters of this wonderful discovery acknowledged that its curative effect is weakened after a few years and that a new intervention in such cases is not always capable of arresting the progress of the slowly progressing disease which leads to blindness?

Finally, must we not actually contend with some colleagues who would like to eliminate completely all surgical intervention in the treatment of chronic simple glaucoma?

More than forty years of clinical experience, therefore, have not succeeded in establishing on a firm basis the action of the iridectomy in the cure of glaucoma, and we have not

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*Annales d'Oculistique, November, 1900.

†We may cite the case of one of our colleagues. One of our most distinguished confrères, on whom the whole arsenal of anti-glaucomatous operations has been allowed to play—iridectomy, anterior sclerotomy, posterior sclerotomy, Hancock's section, enucleation of the first lost eye, extirpation of the superior cervical ganglion of the sympathetic nerve—has unfortunately not been rescued from total blindness.

yet arrived at an indisputable explanation of the manner in which this surgical intervention acts.*

It seems to me that in order to arrive at the desirable end to be able to assign to the surgical intervention in glaucoma a sure and perfect action, it would first be indispensible to establish firmly:

1. How must an iridectomy or a sclerotomy be executed in order to produce the best possible and certain results?

2. How, in a case of direct failure or when the success primarily obtained is lost after a certain time, can we with certainty remove the doubt that this lack of action could be due to an incorrect execution of the operation which has been performed?

Whatever theory they may adhere to, I believe that all clinicians agree in admitting that an iridectomy or a sclerotomy can produce a certain curative effect under the following three conditions: (*a*) That the incision lies in the sclerotic; (*b*) that it is six or eight millimeters long; and (*c*) that any adhesion of the iris to the scar must be religiously avoided.

The objection may be made that these conditions are more difficult to come up to when an acute attack of glaucoma is accompanied by pronounced excess of intraocular pressure, and that just in acute glaucoma it is almost impossible to obtain the three conditions for the exact execution of the operation, especially as far as concerns the adhesion of the iris to the scar. Yet it is well known that just in acute glaucoma the operation, even if executed in the most incorrect manner, has often an absolute curative effect, at least for a certain period of time.

On the other hand, in cases of chronic simple glaucoma with little increase of intraocular tension, the operations aided by the powerful action of miotics, which act but very imperfectly in acute glaucoma, can be executed in the most correct manner and yet have a much less brilliant curative action than is the case with the acute and inflammatory forms of glaucoma.

*The modification of the filtration produced by the incision in the sclera is the most generally accepted explanation, but we must still hear from time to time the absurd objection that scars should rather have the tendency to contract than to stretch. And yet, with what difficulties have the surgeons to contend after a laparotomy in order to prevent the stretching of the scar and the formation of a ventral hernia!

To this I shall answer, *that the curative action of the anti-glaucomatous operations is in direct ratio with the increase of the intraocular tension of the eye to be operated on; that this action is nil if there is no morbid increase of pressure, and that the cicatrization of the pericorneal or scleral incision takes place under normal conditions of the tension of the eye.* In acute glaucoma in which this cicatrization goes on under the influence of a pronounced excess of pressure, which often leads to the formation of a cystoid scar, the stretching of the sclerotic may compensate for the lack of correctness in the operation (smallness of incision and adhesions of the iris).

On the contrary, the most perfectly correct operation in a case of chronic simple glaucoma loses its curative action through the small increase in the intraocular tension, since the smaller this increase of tension, the more nearly are the conditions under which the cicatrization takes place in conformity with those in an eye with normal tension. The curative action, therefore, must necessarily correspond with the quantity of increase of pressure which is present in the eye suffering from chronic simple glaucoma. In these cases also the appearance of the scar will be more and more like one in an eye with normal physiological tension.*

In order to be able to make a correct iridectomy in all kinds of glaucoma, it is necessary to operate under conditions of pressure which are nearly normal. We must, therefore, in order to obtain the desired correctness, put the eye during the performance of the operation in a state of tension which differs the least possible from the physiological pressure, and later on let the cicatrization take place under the glaucomatous excess of pressure, which will finally be counterbalanced by the loss of fluid through the scar.

The iridectomy had hardly been introduced by von Graefe

*As much as I have scrutinized the objections made to the filtration theory, even by the most competent observers, they have not convinced me; and I maintain that the clinical facts, especially the action of the anti-glaucomatous operations, are still the best explained by the theory of cicatricial filtration, which shows us why even the worst executed operations may cure acute glaucoma, and how the most correctly executed operations have sometimes no or almost no curative effect in cases of chronic simple glaucoma. I need hardly state that I do not here speak of cases of mistakes in diagnosis in which naturally an iridectomy or sclerotomy can have no curative effect whatever.

as a cure for glaucoma when already at one of the first meetings of the Ophthalmological Society of Heidelberg I heard Alexander Pagenstecher state that there was no operation more difficult of execution than a *correct* iridectomy on an eye suffering from *acute* glaucoma and that he tried to produce the best conditions for the operation by reducing the pressure to a lesser degree by means of a previously made paracentesis (one or two days).

This advice, which was inspired by a very careful clinical observation, did not receive the notice which it deserved. Almost forty years later only my collaborator, Masselon, began to make to the same end the posterior sclerotomy, which a little later was adopted by Parinaud, Priestley Smith and others.

It is an incontestable fact that a posterior sclerotomy when executed six or seven millimeters distant from the corneal margin, even when made with a knife of the width of one millimeter, is the quicker followed even in the hardest glaucomatous eye by a reduction of the pressure to the norm or even below it, if this puncture is immediately followed by a slight massage (Dianoux).

I am far from trying to doubt this effect which I have been able to watch many times in eyes operated on by Masselon and by myself. Still there is another and less easy intervention which I propose for preceding the iridectomy. Posterior sclerotomy when immediately preceding the iridectomy has, I acknowledge it, the very great advantage not to double the surgical intervention; it is not necessary to mention it to the patient, and as far as he is concerned sclerotomy and iridectomy constitute but one and the same operation. For what I propose the patient must be put twice into the operating chair, and, therefore, we must be sure of his entire confidence and have him well in hand. What I fear for my patients in posterior sclerotomy is the wound of the vitreous body,* be it ever so

*In these last years the effort has been made to substitute for the correct expression *vitreous body*, the little euphonic one of *vitreous* in short. The abbreviators in ophthalmology should not stop here. Why not speak of the ciliary, the aqueous, etc. These constituent parts of the eye might, with the same propriety as the vitreous, clamor for the suppression of their body and of their humor. [The same holds good for the abbreviators in the English language.—TRANSLATOR.]

small, and a wound of this part of the eye, which cannot be overlooked, necessarily accompanies every posterior sclerotomy.

In order, then, to avoid every disagreeable surprise which an iridectomy for the cure of glaucoma might bring, and to assure an absolutely correct execution of this operation so that, if the success of the operation does not prove definitive, the operator has at least no reason to blame himself, I advise in all cases in which an anti-glaucomatous iridectomy is to be made, to *precede this operation by an anterior sclerotomy* one or two days before the final operation.

One may object that just in these acute cases an iridectomy, even when badly executed, is curative, and on the other hand that an anterior sclerotomy is very difficult of correct execution under these circumstances. To the first of these objections I answer that if an iridectomy, even an incorrect one, re-establishes vision in an eye attacked by acute glaucoma, there remains still a certain apprehension as to the duration of this salutary action, and when the effect is lost after a few years one must feel a suspicion that this loss of effect is due to a defective execution of the operation. The future will have to teach us whether in reality patients operated on for acute glaucoma will be absolutely free from any relapse of the disease when only correct operations are performed.

It is certainly true that in the absence of an anterior chamber, when my procedure is followed and still more when operating in the manner of Quaglino, the sclerotomy is very difficult of execution. When, however, it is done as a preliminary operation it is not necessary that the sclerotomy, which I make in the lower corneal margin, should comprise a very considerable extent of sclerotic tissue. Provided one succeeds in making with a von Graefe knife or even with mine (only half as large) a puncture and counterpuncture and leaves between them a small bridge, one succeeds easily by means of massage in reducing the tension in one or two days so as to get a good action of the miotics and to be able to make an absolutely correct iridectomy upwards.

This obligatory addition of an anterior sclerotomy to the iridectomy is certainly no simplification, but it will surely

win its way in a shorter or longer time, because it gives the following advantages:

1. It deprives the iridectomy of the dangers which it incontestably presents in a certain number of cases of *recent* glaucoma, and in those in which the disease has already progressed so far that the nasal border of the field of vision threatens to encroach upon the point of fixation.

2. A long experience has shown me that the sclerotomy alone not only removes the danger of the anti-glaucomatous iridectomy, which is finally made after a shorter or longer period, but even constantly enlarges the visual field by forcing back its nasal border from the point of fixation.

3. Finally, when by the combination of the two methods the glaucoma is cured, or the affection is arrested in its progress, one can feel, after an operation performed rigorously *lege artis*, much more safe concerning the future of one's patient; and if, after a certain number of years, the effect of this double surgical intervention should be lost, one has no cause for self-reproach and besides one may reopen the old scars.

What I hope from the combination of these two operations is that the combination of their curative effects, which is an undeniable one for either one when performed alone, will have, besides freeing the iridectomy from its dangers, the very valuable effect of accentuating its curative influence and of rendering it more durable.

Actually, I can already affirm that in cases of very far progressed glaucoma in which formerly I should not have dared to make an iridectomy and should have simply made a sclerotomy, the combination of these two operations has given me better results than the simple sclerotomy or iridectomy when I tried to make it alone.

As regards the cumulation of the two anti-glaucomatous operations with reference to the duration of their action, a firm statement in the one sense or the other cannot be made with absolute certainty until after a long series of years of observation, but theoretically we are *a priori* tempted to come to favorable conclusions concerning this double intervention.

ON IRIDECTOMY IN GLAUCOMA.*

By CH. ABADIE, M.D.

Translated by Adolf Alt, M.D., St. Louis, Mo.

THE iridectomy is wonderfully effective in acute glaucoma when made in time. Everybody knows this form of glaucoma in which there are violent pains, the eye is hard, the cornea dim, the pupil dilated. The operation is difficult, but generally a sovereign remedy and its action is definitive.

The subacute glaucoma has varieties which are more difficult to recognize, and the ophthalmologists agree less in their description. Some speak of subinflammatory glaucoma, an improper name to my mind; for if there is an inflammation, this inflammation is altogether a secondary one. It would be better to speak of glaucoma with *corneal complication*. This would have the advantage of indicating the capital symptom of these chronic forms and in no way prejudicating their character, since the corneal complication is absolutely and alone due to the increase of the intraocular tension.

It is true, this diffuse dimness of the cornea is of varying degrees; sometimes it is so dense that the iris is almost totally hidden; sometimes it is so insignificant that when the affection is unilateral it can only be recognized by comparing it with the normal eye. When, however, this dimness is present, we can state that in the majority of cases iridectomy will be successful.

Finally we can count on the good effects of this operation in the forms of glaucoma which progress by crises, with intermissions, and *a total remission during the intervals.* These intermitting crises appear in two different ways. They are either more or less dense obscurations of a varying duration, during which vision is impaired to return later to the norm; or these crises show themselves by colored rings which are perceived around flames and which disappear as they have come, without apparent reason.

When these phenomena are really intermittent, and we insist on it, *with complete remission during the intervals*, an iridectomy succeeds in curing them.

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*Archives d'Ophtalmologie, November, 1900.

It is not the same with the other forms of glaucoma, which are called generally chronic simple glaucoma.

The development in these cases shows itself in purely functional disturbances which come on without the patient's knowledge. They are characterized by a progressive contraction of the visual field which, slowly growing, ends by involving the central vision, which it destroys, and thus finally the patient becomes blind.

In another form of chronic simple glaucoma the patient sees colored rings around flames, which attract his attention to the disease which threatens him. But this appearance is constant and is regularly reproduced under exactly the same and well-defined conditions (for instance, every evening as soon as the patient begins to look at a luminous object), and not with perfectly irregular intervals, as is the case in the glaucomata with intermittent crises, of which I have spoken above and which are curable by iridectomy.

In chronic simple glaucoma of whatever variety every operation on the eyeball is contraindicated and has no or a bad influence on vision.

Why should we, in the cases of acute, subacute or intermittent glaucoma, in which the iridectomy is successful, look for something else and perform sympathectomy, a much more laborious and complicated operation?

This is evidently wrong, and yet it is being done and we must fight against it. With astonishment, I found at the Congress of Ophthalmology at Paris and at the one at Heidelberg that a number of the cases cited in the statistics of removals of the superior cervical ganglion belonged to the class of those which can be cured perfectly by iridectomy.

A surgical intervention of this importance was, therefore, not in place, and the less so since just in these cases the sympathectomy did not seem to succeed. It is true, the pains are momentarily calmed; during several days the intraocular tension is reduced; but this operation has not as powerful a curative effect and as definitive as the iridectomy. This has led to the complaints of the surgeons who have applied it wrongly and to the discredit which has been cast on a very useful operation when it is performed in the proper cases.

In fact, glaucoma in its multiple variations is a complex,

bizarre disease, calling for various interventions, according to the form in which it presents itself. What is good in one form is bad in another and *vice versa*.

What I have above all else tried to establish in the numerous communications which I have published on this subject is, that contrary to the opinions held up to this date, glaucoma is not a disease of the eye in the strict sense, but a disease of the sympathetic nerve (whether of the original nuclei or of the conductive nerve-fibres, will become clear later on) which presides over the innervation of the vessels of the eye. Yet it may be possible and even probable that the vasomotor fibres, the constrictors and dilators of the vessels of the eye, take their origin from different places, which might explain the multiplicity of forms and the difference in the result when one or the other set of nerve-fibres is cut. In the acute and subacute forms the section of the iris-circle and of the nerve-fibres which it contains is efficacious. In chronic simple glaucoma we must act on the fibres of the plexus of the carotid.

At all events, in those cases in which an iridectomy promises success, there is all the evidence that we must retain this operation; not only because it is simple and belongs, properly speaking, to ophthalmic surgery, but also, and above everything else, because it is successful; while, on the contrary, in just these cases the sympathectomy, a longer and more difficult operation and one which belongs to general surgery, gives but uncertain results.

On the other hand, in chronic simple glaucoma the section of the nerves need not be made in the iris but in the cervical sympathetic, and in these cases results are obtained which could not be gained by any other method.

We have, it is well understood, given here only very general rules; but every experienced clinician knows that there are always exceptional cases.

Between the typical forms which we are obliged to well and completely separate in order to better differentiate between them, there are others which form transitions and in which it is difficult to know beforehandw hether this or that treatment is likely to prove successful.

In consequence it is possible that in a given case in which an iridectomy seemed indicated, this leaves us in the lurch,

and that we have afterwards to perform sympathectomy; but it is none the less true that at this time the therapy of glaucoma might be formulated in the following manner:

In the acute and subacute forms with the corneal disturbance, in the forms with intermittent crises, obscurations of the visual field with colored rings around the flames but with complete remission in the intervals between the crises, we must first practice iridectomy, then when this fails recur to sympathectomy.

In chronic simple glaucoma we must begin first with the regular application of miotics, twice a day; if this appears to suffice, keep it up; and when, in spite of their systematic employment, vision deteriorates, execute the removal of the superior cervical ganglion.

PAMPHLETS RECEIVED.

"Infective Otitis," by F. M. Wilson, M.D.

"Pyogenic Brain Disease," by A. R. Baker, M.D.

"Artificial Illumination," by L. W. Alleman, M.D.

"The Simple Extraction of Cataract," by E. Jackson, M.D.

"Foreign Bodies in the Orbit," by Chr. R. Holmes, M.D.

"The Hygiene of Vision in the Home," by S. D. Risley, M.D.

"Degenerative Results of Defective Heredity," by Ch. Denison, M.D.

"Forty-First Annual Report of the Nederlandsch Gasthuis voor Oogliders, Utrecht."

"Case of Successful Removal of Piece of Steel from the Vitreous Chamber," by Ch. A. Oliver, M.D.

"Description of a New Method for the Implantation of Glass Balls into Tenon's Capsule," by Ch. A. Oliver, M.D.

"Five Hundred and Seventy-Nine Cases of Infection of the Temporal Bone, with Brief Comment," by F. M. Wilson, M.D.

"History of a Case of Removal of a Retrobulbar Lymphosarcoma, with Preservation of Normal Vision," by Ch. A. Oliver, M.D.

CORRESPONDENCE.

The following letter explains itself. We gladly avail ourselves of an opportunity to present it to our readers and wish Dr. Gould an unqualified success in his new enterprise, in which he deserves the staunch support of an honest and self-esteeming profession:

January 8th, 1901.

My Dear Doctor:

Without a day's notice, and without any complaint to me or criticism of my editorial management of the *Philadelphia Medical Journal*, I have been discharged by the board of trustees. I have not been allowed to explain this act to the subscribers of the *Journal* nor to say a word of goodbye to them. So long as I controlled the reading columns I did so to the uttermost of my ability with the purpose of keeping them wholly free from the influence of any publisher, from commercialism, and from a hundred forms of medical abuses, lay and professional. I have also aimed to give subscribers the most and best literature for the least money possible. In a word, I have sought to establish a great American medical weekly, with the closest attainable adherence to professional ideals and scientific usefulness. The organization of the company and its control by lay capital permitted a failure in my attempt at realizing the purpose.

Hundreds of letters and words of encouragement are being offered, advising the founding of a new medical journal, so organized that no one person can govern its fate. I am willing to give my best of remaining life to this end, but it necessarily depends upon the co-operation of the profession to carry it out. In order to test the desire of the profession I request an immediate reply to the following proposition: With trustworthy and competent business and professional associates, and under good legal advice, a company may be incorporated and capital stock offered to members of the profession, in the following manner:

1. *Founders' shares,* at $50.00, giving the owner thereof a lifetime subscription to the new medical weekly, and perpetual participation in the profits. (The number of founders' shares is limited and the holders will secure a pre-eminent influence in the ownership and conduct of the journal. It is our purpose to make it an honor even to one's children to have been a founder.)

2. *Preferred shares,* drawing six per cent. dividends from the net earnings, subscriptions to which are requested in amounts of $100.00 and over. (The preferred stock offers a safe, permanent and profitable investment.)

3. For $10.00, three years' subscription to the journal and $10.00 worth of common stock. (The common stock participates in dividends upon the net earnings after those paid upon preferred shares.)

4. For $5.00, one year's subscription to the journal and $5.00 worth of common stock.

These offers, any one or all, may be withdrawn at any time and without notice, when a sufficient working capital has been secured. We purpose maintaining the par value of the stock and shall issue only sufficient for a safe working capital, thus insuring full dividend-value on all investments.

In order to enlarge and perfect the new weekly so far and fast as possible, the subscription price will be placed at $4.00

By the above plan there will be an absolute security that no combination of capital, and no lay owner or publisher, can ever obtain control of the journal. Thus at last may be satisfied the greatest need of the American medical profession, for a great organ free from the domination and dangers illustrated in the newspaper world, and unfortunately too frequently in medical journalism.

I do not wish money sent at present, but only a reply *at once* as to your willingness, and to what extent you will give the project your financial support. This letter is designed merely as a test of professional opinion. If sufficient funds are promised, details of plans, prospects and possibilities will be sent promptly. I wish to issue the first number of the journal in February.

The new century opens with a most prosperous commercial outlook. With your hearty practical interest we shall be able

to realize the early establishment of a representative organ of the profession and for the profession.

A postal card blank is enclosed, upon which your conditional offer may be indicated, and the same mailed to my address. Faithfully yours,

GEO. M. GOULD.

1321 Walnut Street, Philadelphia.

PAMPHLETS RECEIVED.

"Trachoma," by J. C. Hancock, M.D.

"A Case of Sarcoma of the Choroid," by A.R. Baker, M.D.

"Retinitis Albuminurica, with a Report of a Case," by F. W. Alter, M.D.

"Thirty-First Annual Report of the New York Ophthalmic and Aural Institute."

"Melanosarcoma of the Conjunctiva, with a Report of a Case," by A. R. Baker, M.D.

"Gumma of the Iris and Ciliary Body; Recovery with Normal Vision," by Ch. A. Oliver, M.D.

"The Use of the Electromagnet in Removing Foreign Bodies from the Eye," by A. R. Baker, M.D.

"The Use of X-Ray and Electromagnet in Locating and Removing Foreign Bodies from the Vitreous Humor," by A. R. Baker, M.D.

"Some Observations Upon Syphilitic Manifestations in the Optic Nerve and Retina; Inflammatory Manifestations," by P. T. Vaughan, M.D.

"Estimation of the Amount of Injury to the Earning Capacity of the Individual from Partial or Complete Loss of Vision," by H. F. Hansell, M.D.

"A Cataract Knife of Excellent Shape and Proportion, Devised a Century and a Half Ago by Dr. Thomas Young of Edinburgh," etc., by A. A. Hubbell, M.D.

"Recovery of Vision by an Iridectomy with Removal of Lens-Capsule and Lens-Debris in a Case of Blindness of more than Thirteen Years' Duration," by Ch. A. Oliver, M.D.

MEDICAL SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.*

Clinical Evening.

G. Anderson Critchett, M.A., M.R.C.S.E., President, in the Chair.

Thursday, December 13, 1900.

Cases.

Mr. J. H. Fisher showed a case of congenitally imperfect separation of the iris from the back of the cornea.

The patient was a woman, aged 27, who had been treated recently at the London Hospital for an attack which appeared to be one of acute or subacute glaucoma. On examination the whole anterior surface of the left iris was pitted. At the outer and lower part there was a wide adhesion of the iris to the back of the cornea, while on the inner side it was adherent to a less extent. Mr. Fisher worked out the refraction under homatropine, with the result that the tension ran to + 1. There was pain, and the pupil remained dilated, although that of the right eye had regained its normal condition the next day. Eserine contracted the pupil and reduced the tension.

He considered that the case threw some light on congenital glaucoma, as the position of the iris here clearly was the cause of the increased tension.

Mr. W. T. Lister showed a large dermoid tumor on the cornea of an ox. There was a large growth on the cornea and sclera, from which grew a bunch of long hairs.

Mr. C. Brooksbank James showed a rare example of persistent pupillary membrane.

The patient was a child, aged 8. She was brought on account of a convergent squint. She was one of a family of four, none of the others having any eye affection. When 16 months of age there was a slight inflammatory attack, which lasted a few days only. In the right eye there was a convergence of

*British Medical Journal.

40°. The iris was of a pale greyish-yellow color. The normal pupil was occupied by strands which enclosed several openings. In the left pupil there were some small tags of pupillary membrane with good vision in the eye, and 5 D. of H. In the affected eye the vision was extremely bad, but the projection was good.

Mr. James also showed a boy, aged 11, who with his H. correction had normal vision. In the fundus there was a large pigmented area below the disc, which had a crescent. The pigment was mostly under the vessels, but near the disc they dipped into it. There was also a strand of persistent pupillary membrane. Mr. James referred to some cases shown by Mr. Sydney Stevenson which had somewhat similar changes.

Mr. A. Stanford Morton showed a case of growth on cornea.

The patient was a boy, aged 7, who was first seen in August. At the upper corneal margin there was a yellowish spot 4 mm. in diameter; it was not raised above the corneal margin, and it extended downwards to about the margin of the undilated pupil. He tried to shave it off, but failed to do so. He then transfixed it and entered a space full of yellowish material, which he scraped out. It was found on examination to consist of connective tissue with some elastic fibres, but no fat. On the deep surface of the part removed was some cellular material in which there appeared to be a few giant cells, but there was nothing typical of tubercle. It certainly was not congenital, and it continued to spread, but very slowly.

Mr. Nettleship referred to a case he had seen with Mr. Bickerton which was somewhat similar, and here after a time it ceased to grow.

Mr. Goldsmith also referred to a somewhat similar case.

Mr. A. H. Thompson showed a case of superficial choroidal atrophy without subjective symptoms in a member of a family subject to night blindness.

The patient was a woman, who made no complaint of her vision, which was found on testing to be $^6/_9$ in one eye and $^6/_6$ in the other. The maculæ were normal and the fields full. In each eye there was a large area of choroidal atrophy; there was, however, no night blindness or diminished light sense.

This patient's father had difficulty in seeing objects, though he could see to read small print, and there were several members of the family who suffered from night blindness.

The PRESIDENT had found that many of these people found very great assistance from wearing glasses of golden yellow tint, and he thought that the cutting off of the violet rays by glasses of this color might be the explanation of this, although it did not help everyone.

Remarks were also made by MR. EDRIDGE-GREEN and MR. TEMPEST ANDERSON.

DR. W. C. ROCKLIFFE showed a case of conjunctival growth (pinguecula ?).

The patient, aged 12, was first seen in August. The mother stated that at birth a small red pimple was noticed at the outer side of the left cornea, and it has slowly spread since then. A crescentic pigmented thickening surrounded the outer third of the cornea, which was 2 mm. in thickness. It was freely movable with the cornea, and had no deep attachment, so that a probe could be passed beneath it. It had not enlarged to an appreciable extent during the last three months. There was a tuberculous history, but a piece he had removed for examination had not yet been reported on. The fundus was normal, and the vision $^{6}/_{9}$. Dr. Rockliffe stated that he did not think it malignant, and he mentioned a similar case shown to the Society by Dr. W. J. Collins.

In the *Ophthalmic Review* for October was an abstract of a paper by Le Grange, in which he stated his belief that they were usually of a dermoid nature, but they contained hairs; whereas in this case no hairs were present. Dr. Rockliffe expressed his intention of dissecting it out.

MR. R. MARCUS GUNN showed a case of (?) tubercle beneath the ocular conjunctiva.

The patient was a girl, aged 13, beneath whose conjunctiva of the left eye near the cornea was a vascular growth. She had tuberculous glands, but there was no family history of tubercle.

MR. J. H. FISHER showed a case of sarcoma of the conjunctiva.

The patient was a man, aged 28, who had been invalided out of the army on account of the eye. In May of last year

he first noticed a small red spot which grew and was removed in February of this year. It recurred and was removed again in May and also in August. There was now a flat yellowish-brown mass which was smooth on the surface, and vascular. About one-fifth of the cornea was covered, but the vision was good. There was no glandular enlargement and no specific history.

Mr. Fisher proposed to remove the eye with the growth, as partial operations had been proved to be useless.

Mr. C. Blair showed an unusual case of choroiditis.

The patient was a woman whose sight had been affected for about three months, and was J. 20. There was an area of closely-packed choroiditis with almost an entire absence of pigment. The patches were not raised, and the field of vision was defective. The vitreous was full of opacities, but there was no specific or tuberculous history.

Mr. Jessop always looked upon these cases of vitreous opacities as syphilitic, and thought that his case was really of that nature.

Mr. C. O. Hawthorne also mentioned a case.

Mr. W. T. Holmes Spicer showed a case of nævus of the orbit.

The patient was a married woman, who when seen in July, 1898, had some proptosis of the left eye due to a vascular tumor. In August of that year he did electrolysis without any immediate result. In January, 1899, he again electrolyzed it. She became pregnant, and during this time it increased greatly in size. A hard mass was then felt, and on cutting into this it was found to be an old blood cyst. Shortly after the cornea ulcerated, and the eye was excised. Mr. Spicer then sent the patient to Dr. Lewis Jones, who considered that owing to the apparent free communication of the growth with the cavernous sinus, electrolysis was not safe.

Mr. Frost suggested that pressure might be beneficial.

The President thought that the growth had better be left alone owing to the danger of cutting into so vascular a tumor.

ABSTRACTS FROM MEDICAL LITERATURE.

BY W. A. SHOEMAKER, M.D.,
ST. LOUIS, MO.

IMMATURE CATARACT AND ITS TREATMENT.

G. E. de Schweinitz, in paper read before the Section of Ophthalmology at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900, concludes as follows:

1. Certain lenticular opacities, most often situated in the naso-inferior quadrant of the lens, occasionally are practically stationary and may be designated "non-progressive." They do not handicap the patient's ocular abilities, and may with propriety be separated from the class to which the name incipient cataract is ordinarily given.

2. Certain lenticular opacities undoubtedly depend, as Risley and others have shown, on what may be designated "disturbances of the choroid," as apart from active and actual choroiditis; and their progress is sometimes apparently checked by measures—optical, local and general medicinal—which restore the choroid coat to normality. Such measures do not, however, remove from the lens the opacities which have already formed when the patient comes under treatment.

3. Certain lenticular opacities which appear in association with diabetes mellitus, nephritis, lithæmia and arteriosclerosis, particularly the last two diseases, are sometimes apparently retarded, like those in No. 2, by measures which are suited to the patient's general condition in connection with local and optical therapeutics; but these measures never dissipate the lens-lesions already present.

4. Certain lenticular opacities produce not only prodromal miopia, but a very high degree of astigmatism, the correction of which may result temporarily in a surprising improvement in visual acuity.

5. Certain lenticular opacities cause an obscuration of vision that may be largely dissipated temporarily by providing the patient with glasses moderately tinted, which give

the best visual acuity during mydriasis, and maintaining this mydriasis with a mild mydriatic. Sometimes, under these circumstances, the mydriasis seems to hasten maturation; this fact should be explained to the patient.

6. Certain lenticular opacities, especially in the form of striæ of refraction, cause an obscuration of vision which is somewhat relieved by maintaining a mild miosis with weak solutions of one of the miotics.

7. If the vision of eyes suffering from incipient cataract of the nuclear type is improved by mydriasis, this is not a sufficient indication for optical iridectomy, unless the patient finds by observation that the increased visual acuity, as noted by test-type examination, is also advantageous in pursuing his ordinary occupation.

8. The extraction of unripe cataracts is preferable to any of the ordinary operations for ripening cataracts.

9. There is no evidence that electricity has the slightest influence in checking the rate of progress of incipient cataracts, or dissipating the opacities which have formed.

10. If there is any evidence that massage of the eye-ball favorably modifies the rate of development of cataract, it is still very insufficient; there is some evidence to show that massage sometimes hastens the opacification of the lens. The subject demands further investigation.

11. There are no "specific remedies" for the treatment of cataract, and there is no reliable evidence that drugs exist which cause the absorption of partially or fully formed cataracts.

12. All lenticular opacities, unless perhaps those which belong to the so-called non-progressive group, should be regarded as indications for a thorough investigation of the patient from the general as well as the ocular standpoint, and for an employment of remedial agents—optical, local, medicinal—according to the findings.

Discussion.—John E. Weeks thinks medicinal therapeutics and other measures to improve health have a wide range, and are of value in preventing the progress of cataract, but does not believe they can cause existing opacities to disappear. In non-progressive cataract he advises optical iridectomy only in those cases where vision can be brought up to $^{20}/_{40}$ or

better by use of a mydriatic and a correction of the error of refraction if any exists. This amount of vision he considers necessary to permit an individual to pursue the ordinary vocations of life. Whenever this amount of vision cannot be obtained the removal of the lens is advised, providing the fundus is normal, and providing there is any reason for not waiting until the cataract matures.

S. D. Risley referred to the series of eighty cases of immature and incipient cataract seen in his private practice and reported in 1889. The analysis of these cases seemed to show that the lens changes were due to some disease of the uveal tract. He believes that the progress of an opacity in the lens can frequently be arrested, but does not think it can ever be made to disappear.

W. H. Bates reported two cases of incipient cataract occurring in patients 70 and 60 years old respectively. Vision in the former was $^{15}/_{200}$ and in the latter $^{15}/_{50}$ with correcting glasses. He referred them to a general practitioner for constitutional treatment, and in three months their vision was improved to $^{15}/_{10}$, and a number of the opacities had disappeared.

G. O. Ring reported a case of incipient cataract where the opacities disappeared entirely under antisyphilitic treatment. The patient had a double optic neuritis, in addition to the lens changes, with vision almost nil. Vision was restored to $^{20}/_{20}$ in one eye and $^{20}/_{30}$ in the other.

OCULAR HEADACHE.

Jas. Hinshelwood (*Glasgow Medical Journal*, November, 1900) insists that in every case of obstinate headache which does not yield to medicinal treatment the eyes should be examined thoroughly, even in the complete absence of subjective ocular symptoms.

Stevens, out of one hundred consecutive cases of chronic headache, cured sixty-one by correcting ocular defects.

Gould finds seventy-five per cent. of all headaches and ninety-five per cent. of all sick headaches due to eye strain.

(The nose and the adjacent sinuses should be thoroughly examined as well as the eyes in every case of obstinate headache.)

EYE AFFECTIONS IN BRIGHT'S DISEASE.

T. R. Pooley (*Med. Review of Reviews*, Sept. 25, 1900) divides these affections into two general classes: (1) Uræmic amblyopia; (2) albuminuric retinitis. He describes in detail the different forms of ocular changes according to the classification of Schoebl of Prague.

1. Typical albuminuric retinitis.
2. Degenerate albuminuric retinitis.
3. Hæmorrhagic albuminuric retinitis.
4. Albuminuric chorio-retinitis.
5. Albuminuric neuro-retinitis.
6. Albuminuric papillitis.
7. Saturnine retinitis.

He believes organic eye lesions occur in 10 per cent. of all cases; the prognosis is most unfavorable. Excluding the cases occurring in acute nephritis during pregnancy, and the acute exanthemata in which a cure is often observed, death is almost certain to occur in a few months or a few years. He looks upon two remedies as of value—bichlorid of mercury and tannate of iron—which latter remedy he believes diminishes the liability of recurrent hæmorrhages.

TWO CASES OF BLINDNESS DUE TO SPHENOIDAL AND ETHMOIDAL DISEASE.

G. Victor Miller (*British Medical Journal*, Dec. 22, 1900) reports two cases of blindness due to sphenoidal and ethmoidal sinus disease followed by death as the result of brain complications. The author also refers to a case reported by Sandford of double optic atrophy; to one recorded by Rouge where there was exophthalmus, strabismus, deafness and blindness, followed by death; and to a case of retro-bulbar neuritis reported by Holmes—all due to disease of the sphenoidal sinus. In addition to the above, a considerable number of cases of sphenoidal sinus disease have been placed on record by Schäfer (who first recorded the condition), Grunwald, Nöbel, Macdonald, Bronner, Heryng, etc.

SYMPATHETIC OPHTHALMIA IN SPITE OF ENUCLEATION.

Abadie (*Revue Génerale d' Ophtalmologie*, September, 1900) reports a case in which sympathetic ophthalmia recurred fourteen years after the enucleation of the eye pri-

marily affected. It resisted all treatment until conquered by injections of three drops of a one-per-cent. solution of mercury cyanide into the stump of the enucleated eye. The optic nerve had probably been invaded by the primary infectious process, but the infection had remained latent for years.

THE LASHES IN CATARACT OPERATIONS.

Schioetz (*Revue Génerale d' Ophtalmologie*, Paris, September, 1900) recommends the removal of the lashes before operating for cataract; he does not advise shaving them, as it produces an injurious irritation and the stiff new growth disturbs the patient. Epilation the author considers the only rational procedure in these cases. It produces no reaction on sound lids, and the sprouting lashes are soft and fine. Several days should elapse between the epilation and the extraction.

CONJUNCTIVITIS PETRIFICANS.

T. Leber (*Archiv. f. Ophthalmologie*, October 23, 1900) in 1895 first described the acute process of calcification, to which he applied the term in the title. Since then he has had occasion to observe and follow three cases of typical and three others which differ in some respects from the exact type described. The process differs from ordinary calcification, as the lime is still in an organic crystallizable combination. Two or three similar cases are on record from preceding centuries, one stated to be the result of witchcraft. The lesion first appears as white opaque spots, with no inflammation nor subjective disturbances, or very slight if they occur. It resembles the action of a caustic, especially of lead-water. The affection progresses spasmodically, new foci appearing and others healing or lingering for weeks, months or even years. The possibility of complete retrogression of the conjunctival process is in striking contrast to its severity. The smaller foci vanish completely by absorption or elimination of the affected tissue; but the more extensive leave the membrane slightly thickened and shriveled at the spot, but not at all in proportion to the extent of the lesion. A tendency to recurrence may remain, but gradually becomes attenuated, although in some cases the attacks recur in endless succession, terminating in blindness. Weak antiseptics may prove useful

at first; but later no irritating substance is tolerated. Warm, moist compresses favor the expulsion of the necrotic tissue. Excision of the focus, when possible, abbreviated the attack and rendered recurrence milder. No micro-organisms could be discovered, but the propagation of the lesions by contact favored the idea of a microbian origin.

THE TREATMENT OF TRACHOMA BY EXPRESSION, WITH SPECIAL REFERENCE TO THE RECURRENCE OF THE DISEASE.

Thos. R. Pooley (*Philadelphia Medical Journal*, Dec. 15, 1900), in view of his later experience, summarizes his conclusions as to the value of the improved method of the treatment of trachoma, as follows:

1. Of all the mechanical methods expression in suitable cases is the most efficient remedy yet discovered; effecting, in a large percentage, a more or less complete cure with better preservation of the conjunctiva than any method hitherto described.

2. It must, however, in every instance, be carefully followed by local treatment until all tendency to relapse has disappeared.

3. The success of the method depends on the conscientious removal, so far as possible, of all the trachomatous bodies without injury to the conjunctiva.

4. In any event, so far as the writer's experience goes, more or less frequent relapses will occur.

CONGENITAL CORECTOPIA.

E. Von Hippel (*Arch. f. Ophthalmologie*, Oct. 23, 1900) reports the examination of an eye enucleated on account of traumatism, which showed a condition of congenital corectopia and luxation of the lens, confirmed by investigation of the other eye. The iris had been pulled backward by a connecting strip of solidified vitreous substance containing an artery and two or three veins. The luxation of the lens had been secondary.

BOOK REVIEWS.

OPHTHALMIC LENSES. DIOPTRIC FORMULÆ FOR COMBINED CYLINDRICAL LENSES. THE PRISM DIOPTRY AND OTHER OPTICAL PAPERS. With one hundred and ten original diagrams. By CHARLES F. PRENTICE, M.D. [Philadelphia, Pa.: *The Keystone*. 1900. Price, $1.50.]

The author has collected in this book all of his formerly published original papers on lenses, etc., in a revised and improved form. This compilation is a very valuable addition to any medical library, as it avoids complicated mathematical formulæ and deductions as much as possible and gives excellent and clear drawings to ensure a perfect understanding of the subjects treated upon.

The publishers, also, have done their work well. ALT.

PAMPHLETS RECEIVED.

"Spasm of Accommodation in Glaucoma Relieved by Eserine," by J. A. Lippincott, M.D.

"Advantage of Strong, Portable, or Easily Movable Magnets in Eye Surgery," by J. A. Lippincott, M.D.

"Systematic Cleansing of the Nasal Cavities Before Operations which Involve Opening of Eyeball," by J. A. Lippincott, M.D.

"Case in which Both Eyes were Lost from Choroidal Hæmorrhage Subsequent to the Extraction of Senile Cataract," by A. R. Baker, M.D.

"Case of Glioma Retinæ and Brain Metastasis, with Autopsy and Review of Literature," by F. M. Wilson, M.D., and E. S. Thomson, M.D.

"A Case of Traumatic Varix of the Orbit, in which Ligation of the Left Common Carotid Artery was Successfully Performed," by Ch. A. Oliver, M.D.

"A Case of Acute Glaucoma with Subhyaloid Hæmorrhage, Supervening upon Uniocular Retinitis Albuminurica," by D. Webster, M.D., and E. S. Thomson, M.D.